

Application No. 10/540,355
Amendment Dated June 19, 2008
Reply to Office Action of March 27, 2008

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

Claim 1 (Currently Amended) A device for condensing volatile organic compounds (VOC) from a storage or transport tank-(4) into oil from the same or another storage or transport tank-(4) via a downcomer-(6), ~~characterized in thatwherein~~ the upper part-(8) of the downcomer-(6), which upper part has a cross sectional area that is substantially unreduced, is connected to a gas pipe-(14), the gas pipe-(14) communicating with the upper part-(16) of the storage or transport tank-(4), and where the upper part (8) of the downcomer-(6) is arranged at a sufficient height above the upper part-(16) of the storage or transport tank-(4) to cause an inflow of gas from the upper part-(16) of the storage or transport tank-(4) due to the underpressure being created in the upper part-(8) of the downcomer-(6) when oil flows down through the downcomer-(6).

Claim 2 (Currently Amended) A device in accordance with Claim 1, ~~characterized in thatwherein~~ it comprises a cooler-(12) arranged upstream the upper part-(8) of the downcomer-(6) so that the oil will flow through said cooler-(12) prior to flowing into the upper part-(8) of the downcomer-(6).

Claim 3 (New) A device for condensing volatile organic compounds from a storage or transport tank into oil in the same or another storage or transport tank, the device comprising:

a tank having a lower section for holding oil and an upper section for holding volatile organic compounds associated with the oil;

a downcomer having an upper part and having a lower end in communication with the lower section of the tank, the upper part being located at a predetermined height above the upper section of the tank and having a substantially constant inner diameter; and

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a gas pipe connected to the upper part of the downcomer and connected to the upper section of the tank;

wherein the predetermined height is sufficient to cause an inflow of gas from the upper section of the tank to the upper part of the downcomer when gravity causes oil to flow from the upper part of the downcomer to the second end of the downcomer.

Claim 4 (New) The device of claim 3, wherein the downcomer has a substantially constant inner diameter from the upper part to the lower end.

Claim 5 (New) The device of claim 3, comprising a pipe connecting the upper part of the downcomer to the lower section of the tank.

Claim 6 (New) The device of claim 5, comprising a pump configured to pump oil from the lower section of the tank to the upper part of the downcomer.

Claim 7 (New) The device of claim 5, comprising a cooler configured to cool oil flowing into the upper end of the downcomer.

Claim 8 (New) The device of claim 7, wherein the cooler is connected to the pipe.

Claim 9 (New) The device of claim 3, wherein the upper part of the downcomer is curved and the gas pipe is tangentially connected to the upper part of the downcomer.

Claim 10 (New) A method for condensing volatile organic compounds from a storage or transport tank into oil in the same or another storage or transport tank, the method comprising the steps of:

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causing oil to flow into an upper part of a downcomer that is located at a predetermined height above the storage or transport tank, the downcomer having a substantially constant inner diameter;

allowing gravity to accelerate the oil down the downcomer from the upper part to a lower end that is in communication with the storage or transport tank; and

providing a gas pipe connecting gas in the storage or transport tank to the upper part of the downcomer;

wherein the predetermined height is such that gravity creates a sufficient underpressure in the upper part of the downcomer to draw gas from the storage or transport tank into the upper part of the downcomer.